

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (currently amended) A method for ~~data type preserving encryption of~~ encrypting ~~characters from~~ a data element in a relational database, ~~wherein said database comprises a plurality of data elements of at least one type, and each data element comprises a string of at least one character, comprising the steps of~~ the method comprising:

reading a data the type of a first data element ~~which is to be encrypted;~~

interpreting said data type ~~in order to form a restricting character set for each character of said data element; and~~

encrypting each character of said first data element into an encrypted character selected from using said restricted restricting character set to control the encryption process to only create encrypted characters included said restricted character set.

2. (previously presented) A method according to claim 1, comprising the further step of: arranging one or more character sets in a pattern for a data type.

3. (previously presented) A method according to claim 1 or 2, where the encryption results in a data element having the same number of characters as the unencrypted data element.

4. (previously presented) A method according to claim 1, comprising the further steps of: converting each character to an index value; and adding a varying value to each index value before encryption.

5. (currently amended) A method according to claim 4, wherein the varying ~~integer~~ value is obtained by the steps of:

creating an initial value by hashing the encryption key;

adding adjacent index values pairwise from the left to the right using said initial value when adding the leftmost character.

6. (previously presented) A method according to claim 1, wherein the encryption is performed using the DES algorithm in cipher mode.

7. (currently amended) A system for ~~data type preserving encryption of~~ encrypting characters from a data element in a relational database, ~~which database comprises a plurality of data elements of at least one type, and each data element comprises a string of at least one character,~~ the system comprising:

reading means for reading ~~the~~ a data type of a first data element ~~which is to be encrypted;~~

interpretation means for interpreting said data type ~~in order~~ to form a restricting character set ~~for each character of said data element;~~ and

encryption means for encrypting each character of said first data element into an encrypted character using selected from said ~~restricted~~ restricting character set ~~to control said encryption means to only create encrypted characters included said restricting character set.~~

8. (new) A method according to claim 1, further comprising:

storing said encrypted characters in a second data element in said relational database.

9. (new) A method according to claim 8, wherein said first data element and said second data element are the same data element.

10. (new) A system according to claim 7, further comprising:

storing means for storing said encrypted characters in a second data element in said relational database.

11. (new) A system according to claim 10, wherein said first data element and said second data element are the same data element.